

Test Procedure for §170.302 (m) Patient-specific education resources

This document describes the test procedure for evaluating conformance of complete EHRs or EHR modules¹ to the certification criteria defined in 45 CFR Part 170 Subpart C of the Final Rule for Health Information Technology: Initial Set of standards, Implementation Specifications, and Certification Criteria for Electronic Health Record Technology as published in the Federal Register on July 28, 2010. The document² is organized by test procedure and derived test requirements with traceability to the normative certification criteria as described in the Overview document located at http://healthcare.nist.gov/docs/TestProcedureOverview_v1.pdf. The test procedures may be updated to reflect on-going feedback received during the certification activities.

The HHS/Office of the National Coordinator for Health Information Technology (ONC) has defined the standards, implementation guides and certification criteria used in this test procedure. Applicability and interpretation of the standards, implementation guides and certification criteria to EHR technology is determined by ONC. Test procedures to evaluate conformance of EHR technology to ONC's requirements are defined by NIST. Testing of EHR technology is carried out by ONC-Authorized Testing and Certification Bodies (ATCBs), not NIST, as set forth in the final rule establishing the Temporary Certification Program (*Establishment of the Temporary Certification Program for Health Information Technology, 45 CFR Part 170; June 24, 2010.*)

Questions about the applicability of the standards, implementation guides or criteria should be directed to ONC at ONC.Certification@hhs.gov. Questions about the test procedures should be directed to NIST at hit-tst-fdbk@nist.gov. Note that NIST will automatically forward to ONC any questions regarding the applicability of the standards, implementation guides or criteria. Questions about functions and activities of the ATCBs should be directed to ONC at ONC.Certification@hhs.gov

CERTIFICATION CRITERIA

This Certification Criterion is from the Health Information Technology: Initial Set of Standards, Implementation Specifications, and Certification Criteria for Electronic Health Record Technology Final Rule issued by the Department of Health and Human Services (HHS) on July 28, 2010.

§170.302 (m) Patient-specific education resources. Enable a user to electronically identify and provide patient-specific education resources according to, at a minimum, the data elements included in the patient's: problem list; medication list; and laboratory test results as well as provide such resources to the patient.

¹ Department of Health and Human Services, 45 CFR Part 170 Health Information Technology: Initial Set of Standards, Implementation Specifications, and Certification Criteria for Electronic Health Record Technology, Final Rule, July 28, 2010.

² Disclaimer: Certain commercial products are identified in this document. Such identification does not imply recommendation or endorsement by the National Institute of Standards and Technology.

Per Section III.D of the preamble of the Health Information Technology: Initial Set of Standards, Implementation Specifications, and Certification Criteria for Electronic Health Record Technology, Final Rule where the patient-specific education resources certification criterion is discussed:

- “We clarify that we do not specify how Certified EHR Technology must be used to provide such resources to a patient. That is, such resources could be printed out, faxed, or emailed.”

INFORMATIVE TEST DESCRIPTION

This section provides an informative description of how the test procedure is organized and conducted. It is not intended to provide normative statements of the certification requirements.

This test evaluates the capability for a Complete EHR or EHR Module to enable a user to electronically identify patient-specific education resources according to, at a minimum, the data elements included in the patient’s problem list, medication list, and laboratory test results as well as provide such resources to the patient.

The Vendor supplies the test data for this test.

Per the Centers for Medicare & Medicaid Services, Medicare and Medicaid Programs, Electronic Health Record Incentive Program Final Rule where the patient-specific education resources certification criterion is discussed:

- “We agree with the HIT Policy Committee and others that the objective and associated measure should make clear that the EP, eligible hospital or CAH should utilize certified EHR technology in a manner where the technology suggests patient-specific educational resources based on the information stored in the certified EHR technology.
- “ We also believe it is necessary to state what level of EP, eligible hospital and CAH discretion is available when deciding whether to provide education resources identified by certified EHR technology to the patient. Therefore, we include the phrase “if appropriate”, which allows the EP or the authorized provider in the eligible hospital or CAH final decision on whether the education resource is useful and relevant to a specific patient.

This test procedure is organized into two sections:

- Identify - evaluates the capability to electronically identify patient-specific education resources using, at a minimum, the data elements included in the patient’s problem list, medication list, and laboratory test results
 - The Tester electronically identifies patient-specific education resources for two or more patients based on, at a minimum, the data elements included in the patients’ problem lists, medication lists, and laboratory test results (these queries do not need to be derived automatically from the patient data stored in the EHR; these queries may be accomplished by the Tester entering the patient data stored in the EHR into an education resources module that is accessed by the Tester through the EHR)

- Provide – evaluates the capability to provide patient-specific education resources for two or more patients
 - The Tester produces patient-specific education resources from the Identify test for two or more patients
 - The Tester validates that the electronically identified patient-specific education resources are produced for two or more patients, and that these education resources are based on the data elements in these patients’ problem lists, medication lists, and laboratory test results (“Patient-specific” means that the education resources must be specific to the individual patient’s needs based on problems, medications, and lab results stored in the EHR for that patient; integrating patient demographic information, such as their name, into the education resources provided to the patients is not required for this test)

REFERENCED STANDARDS

None

NORMATIVE TEST PROCEDURES

Derived Test Requirements

DTR170.302.m – 1: Electronically Identify Patient-specific Education Resources

DTR170.302.m – 2: Provide Patient-specific Education Resources to the Patient

DTR170.302.m – 1: Electronically Identify Patient-specific Education Resources

Required Vendor Information

- VE170.302.m – 1.01: Vendor shall identify two or more patients with an existing record in the EHR to be used for this test
- VE170.302.m – 1.02: Vendor shall identify patient-specific education resources available for this test
- VE170.302.m - 1.03: Vendor shall provide the test data for this test
- VE170.302.m – 1.04: Vendor shall identify the EHR function(s) that are available to: 1) select a patient, 2) electronically identify patient-specific education resources based on, at a minimum, data elements included in a patient’s problem list, medication list, and laboratory test results, and 3) provide these patient-specific education resources to a patient

Required Test Procedure:

- TE170.302.m – 1.01: Using the EHR function(s) identified by the Vendor, the Tester shall identify patient-specific education resources for two or more patients based on, at a minimum, data elements included in the patients’ problem lists, medication lists, and laboratory test results
- TE170.302.m – 1.02: Using the NIST-supplied Inspection Test Guide, the Tester shall verify that the identified patient-specific education resources are based on, at a minimum, data

elements included in the patients' problem lists, medication lists, and laboratory test results

Inspection Test Guide

IN170.302.m – 1.01: Tester shall verify that patient-specific education resources based on, at a minimum, Vendor-supplied data elements included in two or more patients' problem lists, medication lists, and laboratory test results are identified. TD170.302.m shows examples of data elements for identifying patient-specific education resources

DTR170.302.m – 2: Provide Patient-specific Education Resources to the Patient

Required Vendor Information

- As defined in DTR170.302.m – 1, no additional information is required

Required Test Procedure:

TE170.302.m – 2.01: Using the EHR function(s) identified by the Vendor and the education resources identified in the DTR170.302.m – 1: Electronically Identify Patient-specific Education Resources test, the Tester shall produce patient-specific education resources for two or more patients

TE170.302.m – 2.02: Using the NIST-supplied Inspection Test Guide, the Tester shall verify that the patient-specific education resources are produced for two or more patients using a method that allows the education resources to be provided to the patients

Inspection Test Guide:

IN170.302.m – 2.01: Using the Vendor-supplied test data and the education resources identified in the DTR170.302.m – 1: Electronically Identify Patient-specific Education Resources test, Tester shall verify that the patient-specific education resources are produced correctly

TEST DATA

This Test Procedure requires the vendor to supply the test data. The Tester shall address the following:

- Vendor-supplied test data shall ensure that the functional and interoperable requirements identified in the criterion can be adequately evaluated for conformance
- Vendor-supplied test data shall strictly focus on meeting the basic capabilities required of an EHR relative to the certification criterion rather than exercising the full breadth/depth of capability that an installed EHR might be expected to support
- Tester shall record as part of the test documentation the specific Vendor-supplied test data that was utilized for testing

TD170.302.m: Examples of sets of data elements that could be included in the problem list, medication list, and laboratory test results for identifying and providing patient-specific education resources for this test:

Example Data Elements - Set 1

- Problem: Type II Diabetes
- Medication: Avandia
- Laboratory Test Results: Fasting Blood Sugar: 128 mg/dL

Example Data Elements - Set 2

- Problem: Asthma
- Medication: Azmacort
- Laboratory Test Results: Sputum culture: No organisms present

CONFORMANCE TEST TOOLS

None

Document History

Version Number	Description	Date Published
1.0	Approved version published	August 13, 2010
1.1	Removed “draft” from introductory paragraph In the Informative Test Description section <ul style="list-style-type: none">Added CMS verbiage regarding how the EPs and EHs “should utilize certified EHR technology in a manner where the technology suggests patient-specific educational resources based on the information stored in the certified EHR technology.”Added/modified verbiage for the Identify and Provide sections In the Normative Test Procedure section <ul style="list-style-type: none">Added “and the education resources identified in the DTR170.302.m – 1: Electronically Identify Patient-specific Education Resources test” to TE 2.01 and IN 2.01Added/modified verbiage for TE170.302.m – 1.01 and IN170.302.m – 1.01Deleted “based on, at a minimum, data elements included in the patients’ problem lists, medication lists, and laboratory test results” in TE 2.01, 2.02 and IN 2.01	September 24, 2010